

Elaine McCluskey

From: Elaine McCluskey [mccluskey@fnal.gov]
Sent: Tuesday, October 26, 2004 8:40 AM
To: 'Lee Hammond'; Bill Foster; Chuck Federowicz; David Finley; Dixon Bogert; Duane Plant; Ed Crumpley; 'Erene Noyola'; fgarcia@fnal.gov; Rich Stanek; Shekar Mishra; 'Steve Geer'; Tom Lackowski; Vic Kuchler; Weiren Chou
Subject: Notes from 10/20/04 Linac Proton Driver Meeting - Civil

NEXT MEETING WILL BE 10/27/04 IN conFESSional AT 9:30 A.M.

Attendees: Fernanda Garcia, Lee Hammond, Duane Plant, Dixon Bogert, Chuck Federowicz, Tom Lackowski, Elaine McCluskey

Items discussed:

1. Chuck showed new alignment to the south, with only one arc. This led to discussions about
 - a. Road – tie into berm crossings at A0 & D4, run full length of Linac on building side.
 - b. Utilities – bring CHW from CUB along South Booster Rd to Ring Road, to berm crossing at A0. Run full length of Linac. Bring ICW/DWS from D0 Utility Corridor along Ring Rd to berm crossing at D4 where new road will be. Assume no gas, since everything required for gas (heating/dehumidification) can be done with electric, and price savings with gas are probably not significant in this economy. Sanitary – assume to bring from MI60 to cryo building (assume no toilets in other buildings?). Could also possibly use aerobic field instead of sanitary sewer. Power – price in cost estimate to bring 0.5MW machine from either KRS or MSS. If 2MW machine power from MSS, would need add'l 40 MVA transformer and vault at MSS. Need to verify power requirements for facility from Cezary Jach.
 - c. This is the best alignment so far from the environmental perspective, as it impacts prairie, trees, and wetlands the least. Rod believes there are no jurisdictional wetlands, and mitigation might be at 5 acres.
 - d. New alignment questions for physics:
 - i. Is S-curve required, or is one arc ok?
 - ii. Are future experimental options accommodated in this alignment? Chuck believes FEL to the north is ok, need to verify Neutrino Factory.
 - e. Alignment is staked in the field from the road at D4 to MI.
1. Dump – looked at divergence that ends up being 2 ft wide at the creek. Need to map the divergence through the precast to understand structural implications, i.e., whether the existing precast can be reinforced, or would the entire wall/roof structure have to be replaced (and maybe slab extended)?

Fire drill interrupted meeting in the middle.

ITEMS FOR NEXT WEEK:

Site plan with road, buildings, alignment, and at least hand drawn utilities

ACTION ITEMS:

Chuck is preparing new site plan with proposed facilities shown.

Elaine is working with Cezary and Joe P about power requirements and the best way to route it.

Bill/Weiren need to help us finalize the alignment.

NEXT MEETING WILL BE 10/27/04 IN conFESSional AT 9:30 A.M.

Elaine McCluskey
 Fermi National Accelerator Laboratory
 FESS Engineering
 (630) 840-2193
mccluskey@fnal.gov